

**What Is Claimed Is:**

1. A connector module for a telecommunications system, which comprises:

a main body portion, the main body portion having a front cap and a rear cap opposite the front cap, the front cap and the rear cap residing in different planes and being elevationally offset from each other to define a middle portion, the middle portion having a front facing surface recessed from the front cap, the front cap defining the front of the connector module, and the rear cap defining the opposite rear of the connector module, at least the front cap having a plurality of slits formed therein, each slit of the plurality of slits being provided to permit insertion of a wire therein; and

a plurality of first electrical contacts at least partially disposed within the front cap of the main body portion, each first electrical contact of the plurality of first electrical contacts being aligned with a respective one of the plurality of slits and having a portion thereof being exposed through the respective one of the plurality of slits to be electrically contactable with a wire received by the respective one of the plurality of slits;

wherein the main body portion has an upper surface for supporting a plurality of protection modules thereon between the front cap and the front facing surface of the middle portion, the depth of the upper surface between the front cap and the front facing surface of the middle portion being dimensioned to be equal to or greater than the longitudinal length of the protection modules so that the protection modules, when supported on the upper surface of the main body portion, have no portion thereof overlying the plurality of slits formed in the front cap and so as not to interfere with the placement and removal of wires respectively into and from the plurality of slits and the selective electrical connection with the plurality of first electrical contacts while the protection modules are supported on the main body portion of the connector module.

2. A connector module for a telecommunications system as defined by Claim 1, wherein the front facing surface of the middle portion has a plurality of openings formed therein for receiving outwardly extending portions of the protection modules.

3. A connector module for a telecommunications system as defined by Claim 1, wherein the front facing surface of the middle portion includes ground contacts extending

outwardly therefrom for being received by corresponding openings formed in the protection modules.

4. A connector module for a telecommunications system as defined by Claim 1, wherein the main body portion has a plurality of guide channels formed therein for receiving respective wires for connection to the plurality of first electrical contacts.

5. A connector module for a telecommunications system as defined by Claim 4, wherein the main body portion further includes opposite lateral side walls; wherein at least one of the opposite lateral side walls has formed therein a plurality of side openings; wherein a plurality of front openings are formed in the front cap of the main body portion, each front opening of the plurality of front openings being situated in close proximity to the exposed portion of a respective first electrical contact of the plurality of first electrical contacts and to a respective slit of the plurality of slits; and wherein the side openings and front openings communicate with respective guide channels to allow electrical wires to be received by the side openings, guide channels and front openings for routing of the wires to the first electrical contacts at the plurality of slits formed in the front cap.

6. A connector module for a telecommunications system as defined by Claim 1, wherein the protection module supporting surface includes means for retaining the protection modules in place on the supporting surface.

7. A connector module for a telecommunications system as defined by Claim 1, wherein the protection module supporting surface includes a plurality of projections extending outwardly therefrom, the projections selectively lockingly engaging the protection modules positioned on the supporting surface to selectively secure the protection modules thereto.

8. A connector module for a telecommunications system as defined by Claim 7, wherein the projections have a dovetail configuration in transverse cross-section.

9. A connector block having a plurality of connector modules as defined by Claim 1.

10. In combination:

A connector module for a telecommunications system having a main body portion and a plurality of first electrical contacts, the main body portion having a front cap and a rear cap opposite the front cap, the front cap and the rear cap residing in different planes and being elevationally offset from each other to define a middle portion, the middle portion having a front facing surface recessed from the front cap, the front cap defining the front of the connector module, and the rear cap defining the opposite rear of the connector module, at least the front cap having a plurality of slits formed therein, each slit of the plurality of slits being provided to permit insertion of a wire therein, the plurality of first electrical contacts being at least partially disposed within the front cap of the main body portion, each first electrical contact of the plurality of first electrical contacts being aligned with a respective one of the plurality of slits and having a portion thereof being exposed through the respective one of the plurality of slits to be electrically contactable with a wire received by the respective one of the plurality of slits, the main body portion having an upper surface for supporting a plurality of protection modules thereon between the front cap and the front facing surface of the middle portion, the depth of the upper surface between the front cap and the front facing surface of the middle portion being dimensioned to be at least equal to the longitudinal length of the protection modules so that the protection modules, when supported on the upper surface of the main body portion, have no portion thereof overlying the plurality of slits formed in the front cap and so as not to interfere with the placement and removal of wires respectively into and from the plurality of slits and the selective electrical connection with the plurality of first electrical contacts while the protection modules are supported on the main body portion of the connector module; and

a plurality of protection modules, each protection module of the plurality of protection modules being selectively in electrical communication with at least one first electrical contact of the plurality of first electrical contacts when the protection module is supported on the main body portion of the connector module, each protection module of the plurality of protection modules having a longitudinal length which is equal to or less than the distance between the front facing surface of the middle portion of the connector module and the front cap of the connector module so as not to overlie a corresponding slit of the plurality of slits and so as not to interfere with the placement and removal of wires respectively into and from the plurality of slits and the selective electrical connection with the plurality of first electrical

contacts while the protection modules are supported on the main body portion of the connector module.

11. In combination:

a connector module for a telecommunications system and a plurality of protection modules electrically connectable thereto, each protection module having a housing defining a cavity therein, a carrier at least partially residing in the housing, and protection components mounted on the carrier, the housing having a lower wall through which an extended portion of the carrier protrudes, the extended portion of the carrier having exposed electrical contacts situated thereon, the connector module including an insulating housing having a rear contact holder portion and a front contact housing joined to the rear contact holder portion, a plurality of rear electrical contacts at least partially housed by the rear contact holder portion, a plurality of front electrical contacts at least partially housed by the front contact housing, at least one of the front contact housing and the rear contact holder portion having an upper surface and a plurality of grooves formed in the upper surface thereof, each groove being positioned in proximity to a respective front electrical contact and a respective rear electrical contact such that portions of the respective front electrical contact and rear electrical contact are exposed and extend partially into the respective groove, a respective protection module of the plurality of protection modules being selectively mountable on the upper surface of the at least one of the front contact housing and the rear contact holder portion such that the extended portion of the carrier thereof is slidably receivable in a respective groove formed in the upper surface with the contacts on the extended portion being positionable in electrical contact with at least one of the front electrical contacts and with at least one of the rear electrical contacts of the connector module, at least the front contact housing having a plurality of slits formed therein, at least one of the front electrical contacts of the plurality of front electrical contacts being aligned with a respective one of the plurality of slits and having a portion thereof being exposed through the respective one of the plurality of slits to be electrically contactable with a wire received by the respective one of the plurality of slits, the upper surface on which the protection modules are mountable having a depth measured from the exposed portions of the front electrical contacts backward in the direction of the rear contact holder portion which is particularly dimensioned to be equal to or greater than the longitudinal length of each protection module of the plurality of protection modules such that, when the protection modules are mounted on the upper surface, the protection modules have

no portion thereof overlying the plurality of slits and the front electrical contact portions exposed within the slits and so as not to interfere with the placement and removal of wires respectively into and from the plurality of slits and the selective electrical connection with the plurality of front electrical contacts while the protection modules are mounted on the upper surface of the at least one of the front contact housing and the rear contact holder portion of the connector module.

12. A combination as defined by Claim 11, wherein the front electrical contacts are arranged side-by-side to define adjacent front electrical contacts; wherein the rear electrical contacts are arranged side-by-side to define adjacent rear electrical contacts; wherein each groove of the plurality of grooves formed in the upper surface of the at least one of the front contact housing and the rear contact holder portion is positioned between respective adjacent front electrical contacts and between respective adjacent rear electrical contacts such that portions of the respective adjacent front electrical contacts and portions of the respective adjacent rear electrical contacts are exposed and extend partially into the respective groove therebetween; and wherein the carrier of the protection module includes opposite sides on which the exposed electrical contacts are situated for electrically contacting the exposed portions of the respective adjacent front electrical contacts and the exposed portions of the respective adjacent rear electrical contacts.

13. A combination as defined by Claim 11, wherein the connector module further includes an outer housing joined to at least one of the front contact housing and the rear contact holder portion and situated to at least partially overlie the upper surface of the at least one of the front contact housing and the rear contact holder portion, the outer housing having a top wall which is spaced apart from the upper surface a distance such that the plurality of protection modules is closely received between the top wall of the outer housing and the upper surface.

14. A connector block having a plurality of connector modules as defined by Claim 11.

15. In combination:

a connector module for a telecommunications system and a plurality of protection  
5 modules electrically connectable thereto, each protection module having a housing defining a  
cavity therein, a carrier residing in the housing, protection components mounted on the  
carrier, and electrical contacts electrically connected to the carrier, the housing including a  
wall having openings formed through the thickness thereof, the electrical contacts being in  
electrical communication with the carrier and protection components mounted thereon and  
10 being situated to at least partially extend through the openings formed in the wall to define  
exposed portions of the electrical contacts, the connector module including an insulated  
housing having an outer housing, a front contact housing and a rear contact housing, the outer  
housing defining an interior chamber in which is at least partially received the front contact  
housing and the rear contact housing, the outer housing having a top wall, and at least one of  
15 the front contact housing and the rear contact housing having an upper surface on which is  
mountable the plurality of protection modules, the top wall of the housing and the upper  
surface of the at least one of the front contact housing and the rear contact housing defining a  
space therebetween which is dimensioned to receive therein the plurality of protection  
modules, the connector module having a plurality of front electrical contacts and a plurality  
20 of rear electrical contacts, the front contact housing at least partially housing the plurality of  
front electrical contacts, the rear contact housing at least partially housing the plurality of rear  
electrical contacts, portions of the front electrical contacts and the rear electrical contacts  
respectively extending from the front contact housing and the rear contact housing and being  
exposed within the interior chamber of the outer housing to define exposed contact portions,  
25 the exposed contact portions of a respective protection module electrical contact being  
contactable with the exposed contact portions of respective front and rear electrical contacts  
of the connector module when the respective protection module is received by the interior  
chamber of the outer housing, at least the front contact housing having a plurality of slits  
formed therein, at least one of the front electrical contacts of the plurality of front electrical  
30 contacts being aligned with a respective one of the plurality of slits and having a portion  
thereof being exposed through the respective one of the plurality of slits to be electrically  
contactable with a wire received by the respective one of the plurality of slits, the upper  
surface on which the protection modules are mountable having a depth measured from the  
exposed portions of the front electrical contacts backward in the direction of the rear contact  
35 housing which is particularly dimensioned to be equal to or greater than the longitudinal

length of each protection module of the plurality of protection modules such that, when the protection modules are mounted on the upper surface, the protection modules have no portion thereof overlying the plurality of slits and the front electrical contact portions exposed within the slits and so as not to interfere with the placement and removal of wires respectively into  
40 and from the plurality of slits and the selective electrical connection with the plurality of front electrical contacts while the protection modules are mounted on the upper surface of the at least one of the front contact housing and the rear contact housing of the connector module.

16. A combination as defined by Claim 15, wherein the top wall of the outside housing includes a plurality of rails partially extending into the interior chamber defined by the outer housing; and wherein each protection module of the plurality of protection modules includes a top wall having a recess formed longitudinally therein, a respective rail of the  
5 plurality of rails being receivable by the recess of a respective protection module of the plurality of protection modules when the respective protection module is slidably received in the interior chamber of the outer housing between the top wall thereof and at least the upper surface of the at least one of the front contact housing and the rear contact housing.

17. A combination as defined by Claim 15, wherein the top wall of the outer housing has a plurality of first rails extending downwardly therefrom and at least partially into the interior chamber of the outer housing; and wherein the upper surface of the at least one of the front contact housing and the rear contact housing includes a plurality of second  
5 rails formed thereon and extending upwardly therefrom and at least partially into the interior chamber of the outer housing, respective first rails of the plurality of first rails and respective second rails of the plurality of second rails being aligned with each other to at least partially define slots between adjacent first and second rails, respective protection modules being receivable within corresponding slots defined by adjacent first and second rails within the  
10 interior chamber of the outer housing.

18. A combination as defined by Claim 15, wherein each protection module of the plurality of protection modules includes a first protrusion and a second protrusion, the first and second protrusions being spaced apart a predetermined distance from each other in a direction along the longitudinal axis of the protection module; and wherein the front contact

5 housing includes at least one ridge extending outwardly from a surface thereof and at least partially transversely across the width of the front contact housing, the first and second protrusions of the protection modules engaging the at least one ridge of the front contact housing when the protection modules are inserted into the interior chamber of the outer housing, the first and second protrusions and the at least one ridge together providing an  
10 indication of the position of the protection modules with respect to at least the front contact housing and the state of electrical communication between the electrical contacts of the protection modules and the front electrical contacts and rear electrical contacts of the connector module.

19. A connector block having a plurality of connector modules as defined by Claim 15.